CLAIMS

1. A method of evaluating a tuneable laser (15) and determining suitable laser operation points, wherein said laser includes two or more tuneable sections in which injected currents can be varied, of which sections at least one is a reflector section and one is a phase section, **characterised** by leading part of the light emitted by the laser (15) to an arrangement which includes a Fabry-Perot filter (32) and a first detector (33) and a second detector (34), said detectors being adapted to measure the power of the laser and to deliver a corresponding detector signal (I1, I2); arranging the detectors relative to the Fabry-Perot filter so that the detector signals (I1, I2) will contain information relating at least to the wavelength of the detected light; sweeping the currents through the tuning sections (17, 18, 19) such as to pass through different current combinations; measuring the ratio between the two detector signals (I1, I2) during said sweep, wherein the reflector current (17) is the inner sweep variable which is swept in one direction and then in an opposite direction back to its start value; and storing the control combination for said tuning currents when the ratio between the detector signals (I1, I2) lies within a predetermined range signifying that the emitted light lies within one of a number of wavelengths given by the Fabry-Perot filter (32) and said ratio lies within said predetermined range for a given reflector current in both sweep directions of said reflector current.

2. A method according to Claim 1, **characterised** in that the Fabry-Perot filter (32) exhibits a certain transmission

for each wavelength included in a channel plane which contains desired wavelengths and exhibits a transmission that deviates therefrom with respect to other wavelengths.

3. A method according to Claim 1 or 2, **characterised** by delivering the signal from one detector (33) at the front mirror of the laser to a power regulating circuit (20) which is adapted to control the laser (15) to emit light with a constant power from the front mirror.

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4. A method according to Claim 1, 2 or 3, **characterised** by causing a monitor diode (40) placed on the side of the laser (15) opposite to that side on which the first (32) and the second (33) detectors are placed to measure the light emitted by the laser; and adjusting one or more of the tuning currents so as to minimize the ratio between the power of the rearwardly emitted light and the power of the forwardly emitted light, therewith optimising an operation point for the laser (15).

5. A method according to Claim 1, 2, 3 or 4, **characterised** by sweeping one or more other tuning currents to sections that exhibit an hysteresis effect, excluding the reflector current, so as to determine whether or not hysteresis occurs in a contemplated operation point.

6. A method according to Claim 1, 2, 3, 4 or 5, **characterised** by measuring the wavelength transmitted by the laser (15) in a number of the possible operation points taken out until one operation point has been obtained for each desired wavelength, and storing the control combination for each operation point.